

# HALLIBURTON

iCem® Service

## **NOBLE ENERGY INC-EBUS**

Ft. Lupton District, CO

### **Blackburn**

Weld County

Chevron – True 41 – Blackburn 01N - Production

Job Date: Wednesday, January 21, 2026

Sincerely,

**Alison Giachino and Crew**

### DISCLAIMER/LIMITATION OF LIABILITY

THERE ARE NO REPRESENTATIONS OR WARRANTIES BY HALLIBURTON, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH THIS REPORT OR THE SOFTWARE USED TO GENERATE IT. CUSTOMER ACKNOWLEDGES THAT IT IS ACCEPTING THE REPORT AND CONTENTS THEREOF "AS IS". IN NO EVENT WILL HALLIBURTON, ITS AFFILIATES OR SUPPLIERS, NOR THEIR RESPECTIVE OFFICERS, DIRECTORS OR EMPLOYEES BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL, PUNITIVE OR EXEMPLARY DAMAGES (INCLUDING, WITHOUT LIMITATION, LOSS OF DATA, PROFITS, BUSINESS, PRODUCTION OR USE OF HARDWARE, OR SOFTWARE), FORESEEABLE OR NOT. CUSTOMER ACCEPTS FULL RESPONSIBILITY FOR ANY INVESTMENT MADE BASED ON RESULTS FROM THE SOFTWARE AND REPORT CONTENTS. ANY INTERPRETATIONS, ANALYSES OR MODELING OF ANY DATA, INCLUDING, BUT NOT LIMITED TO CUSTOMER DATA, AND ANY RECOMMENDATION OR DECISIONS BASED UPON SUCH INTERPRETATIONS, ANALYSES OR MODELING ARE OPINIONS BASED UPON INFERENCES FROM MEASUREMENTS AND EMPIRICAL RELATIONSHIPS AND ASSUMPTIONS, WHICH INFERENCES AND ASSUMPTIONS ARE NOT INFALLIBLE, AND WITH RESPECT TO WHICH PROFESSIONALS IN THE INDUSTRY MAY DIFFER. ACCORDINGLY, HALLIBURTON CANNOT AND DOES NOT WARRANT THE ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTERPRETATION, RECOMMENDATION, MODELING OR OTHER PRODUCTS OF THE SOFTWARE PRODUCT. AS SUCH, ANY INTERPRETATION, RECOMMENDATION, MODELING OR REPORT RESULTING FROM THE SOFTWARE FOR THE PURPOSE OF ANY DRILLING, WELL TREATMENT, PRODUCTION OR FINANCIAL DECISION WILL BE AT THE SOLE RISK OF CUSTOMER WITH NO RELIANCE BY ANY THIRD PARTY (REGARDLESS OF NEGLIGENCE, BREACH OF CONTRACT OR WARRANTY, OR ANY OTHER CAUSE). SIMULATION AND 3D DISPLACEMENT RESULTS ARE NOT INTENDED AS AND SHOULD NOT BE USED AS A REPLACEMENT FOR BOND LOGS IN DETERMINING TOP OF CEMENT. CUSTOMER HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERNING USE OF THE REPORT AND RELATED SERVICES. UNDER NO CIRCUMSTANCES WILL HALLIBURTON, ITS AFFILIATES OR SUPPLIERS NOR THEIR RESPECTIVE OFFICERS, DIRECTORS OR EMPLOYEES BE LIABLE FOR ANY DAMAGES OR LOSS.

## Table of Contents

---

1.0	Cementing Job Summary .....	4
1.1	Executive Summary .....	4
1.2	Job Overview .....	5
1.3	Water Field Test.....	6
1.4	Actual Pump Schedule .....	7
2.0	Real-Time Job Summary .....	8
2.1	Job Event Log .....	8
3.0	Attachments.....	10
3.1	Blackburn 01N-Chevron Job Chart.png.....	<b>Error! Bookmark not defined.</b>

## 1.0 Cementing Job Summary

---

### 1.1 Executive Summary

---

Halliburton appreciates the opportunity to perform the cementing services on the **Blackburn 01N Production**. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

Job was pumped with an average cement density of 13.17 ppg at 10.07 bbl/min. Cement was displaced with 20 bbl. of treated water with retarder and 463 bbls. of treated freshwater displacement. Plug was landed at 2,430 psi and bumped to 2,950 psi. Pressure was bled off and 4 bbls. of fluid was returned to the truck. With 74 bbls of spacer returning to surface, the estimated TOC is 965'.

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

**Halliburton Rockies Cement Team**

## 1.2 Job Overview

Job Details	
API #:	05-123-52754
City, County:	La Salle, Weld
SO#:	910589223

Job Times		
	Date (mm/dd/yyyy)	Time (hh:mm)
Requested Time On Location:	1/21/2026	0800
Called Out Time:	1/21/2026	0200
Arrived On Location:	1/21/2026	0700
Job Started:	1/21/2026	1107
Job Completed:	1/21/2026	1424
Departed Location:	1/21/2026	1600

	Description	Units	Value
1	Surface temperature at the time of the job	degree F	45
2	Mud type (OBM, WBM, Synthetic, Water, Brine)	-	OBM
3	Mud density	ppg	10.9
4	Casing set depth (shoe)	ft	19963.17
5	TVD	ft	6998
6	Float collar depth	ft	19956.16
7	Length of rate hole	ft	12'
8	Previous casing shoe depth	ft	1648
9	Pre-job mud circulation time	hh:mm	1:45
10	Pre-job mud circulation rate	bpm	13

11	Pre-job mud circulation volume	bbls	826
12	Mud circulation pressure at start of cement	psi	1830
13	Annual flow before the start of job	Y/N	N
14	Pipe movement during cement job	Y/N	Y
15	Calculated displacement	bbls	463
16	Job displaced by	Rig/HES	HES
17	Estimated returns % during job	%	100
18	Fluid returns to surface	Spacer/Cement, bbls	73.7/0
19	Final circulation pressure, rate prior to plug bump	psi @ bpm	2430/3
20	Number of Centralizers	-	257
21	Number of bottom plugs	-	2
22	Number of trucks used preparing/during job	-	
23	Add hours? If Yes, put #	Y/N and hours	N
24	NPT? If Yes, put #	Y/N and hours	N

### 1.3 Water Field Test

	Recorded Value	Unit	Acceptable Limit	Potential Problems if Values Exceed the Limit
<b>pH</b>	7		6.0 - 8.0	Chemicals in water can cause severe retardation
<b>Temperature</b>	63	F	60 - 80 F	Can can pre-mature setting of cement
<b>Chlorides</b>	Less 200	ppm	3000 ppm	Can shorten thickening time

## 1.4 Actual Pump Schedule

**Stage 1**

	Density (ppg)	Volume (bbls)	Yield (ft <sup>3</sup> /sk)	Water Requirement (gal/sk)	Bulk Sacks (sks)	Total Water (gals)
Spacer Fluid	12	120	2.093	12.78	321.96	4115
Cap Cement	13.2	39.56	1.59	7.97	140	1116
Lead Cement	13.2	234.31	1.68	7.92	784	6210
Tail Cement	13.2	491.26	1.99	9.51	1382	13143
Top Plug	1					
Displacement Fluid	8.33	463				19446

## 2.0 Real-Time Job Summary

### 2.1 Job Event Log

Seq. No.	Activity	Date	Time	Comments
1	Call Out	1/21/2026	02:00:00	CREW CALLED OUT AT 0200 HOURS ON 1/21/2026, REQUESTED ON LOC 0800 HOURS ON 1/21/2026
2	Crew Leave Yard	1/21/2026	06:00:00	CREW LEAVES YARD
3	Arrive At Loc	1/21/2026	07:00:00	CREW ARRIVES AT LOCATION
4	Pre-Rig Up Safety Meeting	1/21/2026	07:10:00	DISCUSS HAZARDS OF RIGGING UP
5	Rig-Up Equipment	1/21/2026	07:15:00	RIG UP
6	Rig-Up Completed	1/21/2026	10:05:00	RIG UP COMPLETED
7	Pre-Job Safety Meeting	1/21/2026	10:15:00	DISCUSS HAZARDS OF JOB, HAZARDS OF HALLIBURTON EQUIPMENT, HAZARDS OF PRESSURE. RIG CIRCULATES 826 BBLS/ 1830 PSI/ 13 BPM
8	Start Job	1/21/2026	11:07:28	BEGIN RECORDING DATA
9	Test Lines	1/21/2026	11:09:59	TEST HES LINES 6680 PSI
10	Drop Bottom Plug	1/21/2026	11:19:55	1000 PSI CITADEL BOTTOM PLUG
11	Pump Spacer	1/21/2026	11:20:57	120 BBLS TUNED PRIME SPACER. 12 PPG. USED 70 GALLONS D-AIR TOTAL JOB
12	Shutdown	1/21/2026	11:36:55	SHUTDOWN
13	Drop Bottom Plug	1/21/2026	11:38:00	1000 PSI CITADEL BOTTOM PLUG
14	Pump Cap Cement	1/21/2026	11:38:03	140 SACKS ECONOCEM CAP CEMENT. 39.56 BBLS, 13.2 PPG, ESTIMATED TOCC=965'
15	Pump Lead Cement	1/21/2026	11:47:10	784 SACKS ELASTICEM LEAD CEMENT, 234.31 BBLS, 13.2 PPG, ESTIMATED TOLC=1816'
16	Pump Tail Cement	1/21/2026	12:12:43	1382 SACKS NEOCEM TAIL CEMENT, 491.26 BBLS, 13.2 PPG, ESTIMATED TOTC=7559'

17	Other	1/21/2026	13:08:12	PUMP 10 BBLS FRESH WATER ON TOP OF CEMENT TO CLEAN LINES AND PUMPS
18	Shutdown	1/21/2026	13:12:13	SHUTDOWN
19	Drop Top Plug	1/21/2026	13:15:17	2250 PSI CITADEL TOP PLUG
20	Pump Displacement	1/21/2026	13:15:19	463 BBLS FRESH WATER DISPLACEMENT. FIRST 20 BBLS HAS 10 GALLONS MICRO MATRIX CEMENT RETARDER, REMAINING DISPLACEMENT HAS 25 GALLONS BE-9 AND 15 GALLONS MCMX 820-6
21	Bump Plug	1/21/2026	14:12:56	FCP 2430 PSI/3 BPM, BUMP PRESSURE 2950 PSI,
22	Pressure Up Well	1/21/2026	14:17:51	PRESSURE UP WELL TO RUPTURE DISC, RUPTURES AT APPROX 4177 PSI/1 BPM
23	Other	1/21/2026	14:19:52	PUMP 5 BBL WET SHOE, 3 BPM/2600 PSI
24	Check Floats	1/21/2026	14:21:22	RELEASE PRESSURE, FLOATS HOLD, 4 BBLS BACK TO PUMP TRUCK, APPROX 73.7 BBLS SPACER TO SURFACE. START 30 MINUTE IN FLOW. GAINED APPROX .75 BBLS AFTER 30 MINUTES
25	End Job	1/21/2026	14:23:16	STOP RECORDING DATA
26	Pre-Rig Down Safety Meeting	1/21/2026	15:00:00	DISCUSS HAZARDS OF RIGGING DOWN
27	Rig-Down Equipment	1/21/2026	15:05:00	RIG DOWN
28	Rig-Down Completed	1/21/2026	15:45:00	RIG DOWN EQUIPMENT
29	Crew Leave Location	1/21/2026	16:00:00	CREW DEPARTS LOCATION

3.0 Attachments

3.1 Job Summary - Chevron – True 41 – Blackburn 01N - Production

